



## Related Publications

### Journal Articles, Technical Reports, Conference Proceedings

Official Aztec User's Guide: Version 2.1, R. S. Tuminaro, M. Heroux, S. A. Hutchinson, and J. N. Shadid, December, 1999.

Paper

Aztec User's Guide: Version 2.0, S. A. Hutchinson, L. V. Prevost, J. N. Shadid, C. H. Tong and R. S. Tuminaro, September, 1998.

Paper

Aztec User's Guide: Version 1.1, S. A. Hutchinson, J. N. Shadid, and R. S. Tuminaro, Sandia National Laboratories Technical Report, SAND95-1559 October, 1995.

Paper, [Abstract](#)

Iterative Methods for Nonsymmetric Systems on MIMD Machines, J. N. Shadid, R. S. Tuminaro, Proceedings of the Fifth SIAM Conference on Parallel Processing for Scientific Applications, Eds. Dongarra, Messina, Sorensen, and Voight, Houston, TX, March 25-17, 1991.

[Abstract](#)

Sparse Iterative Algorithm Software for Large-Scale MIMD Machines: An Initial Discussion and Implementation, J. N. Shadid, R. S. Tuminaro, Concurrency: Practice and Experience, Vol. 4, No. 6, pp 481-497, Sep., 1992

[Abstract](#)

A Comparison of Preconditioned Nonsymmetric Krylov Methods on a Large-Scale MIMD Machine, J. N. Shadid, R. S. Tuminaro, SIAM J. Sci. Comput., Vol 15, No. 2, pp 440-459, March, 1994

[Abstract](#)

Parallel Performance of a Preconditioned CG Solver for Unstructured Finite Element Applications, J. N. Shadid, S. A. Hutchinson, and H. K. Moffat, Proceedings of the Colorado Conference on Iterative Methods, Breckenridge, Colorado, April 5-9, 1994

Paper, [Abstract](#)

Three-dimensional wideband electromagnetic modeling on massively parallel computers, D. L. Alumbaugh, G. A. Newman, L. Prevost, and J. N. Shadid, Radio Science, 31, No. 1, pp 1-23, Jan-Feb, 1996

Parallel Sparse Matrix Vector Multiply Software for Matrices with Data Locality, R. S. Tuminaro, J. N. Shadid, S. A. Hutchinson, To be published in Concurrency: Practice and Experience, 1997

Paper, [Abstract](#)

An inexact Newton method for fully-coupled solution of the Navier-Stokes equations with heat and mass transport, John N. Shadid, Raymond S. Tuminaro, Homer F. Walker, To be submitted to the J. Comp. Phy., Jan 1997

[Abstract](#)

**Recent Invited Talks, Conference Abstracts**

Iterative Methods for Sparse Systems on Large-Scale MIMD Machines, J.N. Shadid, invited presentation at SCOREC Workshop on Parallel Scientific Computation at Rensselaer Polytechnic Institute, Oct. 31, 1991.

A Comparison of Preconditioned Krylov Methods on a Large-Scale MIMD Machine, J.N. Shadid and R.S. Tuminaro, Presented at Copper Mountain Conference on Iterative Methods, Copper Mountain, CO, April 9-15, 1992.

Aztec: A parallel iterative package for unstructured grid problems, Raymond S. Tuminaro, Scott A. Hutchinson, John N. Shadid, invited presentation at the AMS-IMS-SIAM Conference on Linear And Nonlinear Conjugate Gradient-Related Methods, Seattle, July, 1995.

[Abstract](#)

Solution of Complex Chemically Reacting Flows on MP Machines, J. N. Shadid, H. K. Moffat, A. G. Salinger, K. D. Devine, S. A. Hutchinson, G. L. Hennigan, invited presentation at "The Workshop on Iterative Methods for Large Scale Nonlinear Problems", Utah State University Conference, Logan UT, Sept 14-16, 1995.

[Abstract](#)

Aztec: a parallel iterative package for unstructured applications, Raymond S. Tuminaro, Scott A. Hutchinson, John N. Shadid, invited presentation at the Workshop on Iterative Methods for Large Scale Nonlinear Problems, Logan, UT, Sept 14-16, 1995.

[Abstract](#)

Fully-Coupled Iterative Solution of Chemically Reacting Flows on Massively Parallel Supercomputers, J. N. Shadid, invited presentation at Third US-Japan Symposium on Finite Element Methods in Large-Scale Computational Fluid Dynamics, University of Minnesota and the Army High Performance Computing Research Center, April 1-3, 1996.

The Aztec Iterative Package, Raymond S. Tuminaro, Scott A. Hutchinson, John N. Shadid, invited presentation at the International Linear Algebra Year Iterative Workshop, Toulouse, France, June, 1996.

[Abstract](#)

Parallel Iterative Solution of the Navier-Stokes Equations with Heat and Mass Transport, John N. Shadid, Raymond S. Tuminaro, Scott A. Hutchinson, Presented at the Eighth SIAM Conference on Parallel Processing for Scientific Computing, Minneapolis, MN, March 14-17, 1997.

[Abstract](#)

Parallel Newton-Krylov methods for the solution of unstructured finite element reacting flow applications, John N. Shadid, Raymond S. Tuminaro, Homer F. Walker, invited presentation at Fourth US National Congress on Computational Mechanics, San Francisco, California, August 6-8, 1997.

[Abstract](#)